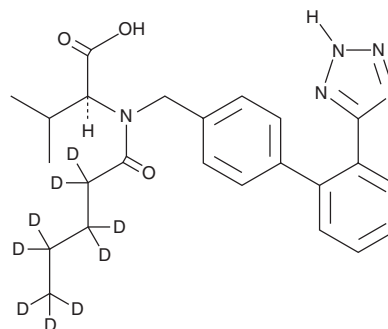


PRODUCT INFORMATION



Valsartan-d₉ Item No. 25226

CAS Registry No.: 1089736-73-1
Formal Name: N-(1-oxopentyl-2,2,3,3,4,4,5,5,5-d₉)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-L-valine
MF: C₂₄H₂₀D₉N₅O₃
FW: 444.6
Chemical Purity: ≥98% (Valsartan)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Valsartan-d₉ is intended for use as an internal standard for the quantification of valsartan (Item No. 14178) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Valsartan-d₉ is supplied as a solid. A stock solution may be made by dissolving the valsartan-d₉ in the solvent of choice, which should be purged with an inert gas. Valsartan-d₉ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of valsartan-d₉ in these solvents is approximately 30 mg/ml.

Description

Valsartan is a nonpeptide antagonist of the angiotensin II type 1 (AT₁) receptor (IC₅₀ = 2.7 nM).¹ It is 20,000-fold selective for AT₁ over AT₂ and, unlike some other AT receptor antagonists, does not alter peroxisome proliferator-activated receptor γ (PPAR γ) activity *in vitro*.² *In vivo*, valsartan (30 mg/kg) increases cardiac output and reduces left ventricular fibrosis in a model of heart failure with reduced ejection fraction in mice with streptozotocin-induced diabetes.³ Formulations containing valsartan have been used in the treatment of hypertension and heart failure.^{2,4,5}

References

1. Burnier, M. Angiotensin II type 1 receptor blockers. *Circulation* **103**(6), 904-912 (2001).
2. Munger, M.A. Use of angiotensin receptor blockers in cardiovascular protection: Current evidence and future directions. *PT* **36**(1), 22-40 (2011).
3. Suematsu, Y., Miura, S., Goto, M., et al. LCZ696, an angiotensin receptor-neprilysin inhibitor, improves cardiac function with the attenuation of fibrosis in heart failure with reduced ejection fraction in streptozotocin-induced diabetic mice. *Eur. J. Heart Fail.* **18**(4), 386-393 (2016).
4. Irons, B.K., Tsikouris, J.P., and Thomas, A.A. The use of angiotensin receptor blockers in the treatment of chronic heart failure. *J. Cardiovasc. Pharmacol.* **44**(6), 718-724 (2004).
5. Schiffrin, E.L. Beyond blood pressure: The endothelium and atherosclerosis progression. *Am. J. Hypertens.* **15**(10 Pt 2), 115S-122S (2002).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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